WHO/UNICEF strategy of Integrated Management of Childhood Illness (IMCI)

Development of a strategy of Integrated Management of Childhood Illness (IMCI) was started by WHO and UNICEF in 1992. Its main objective was reduction of the mortality and morbidity associated with the major causes of childhood illness. Every year, about 10 million children die before reaching their fifth birthday. Over 70% of these deaths, the vast majority occurring in the developing world, are due to acute respiratory infections, diarrhoeal diseases, malaria, measles and malnutrition, often in combination. It was decided to initially focus on improving care at the first level health facilities where millions of children arrive sick each day, most of them with one or more of the major causes of illness and death.

IMCI strategy seeks to reduce childhood mortality and morbidity by adopting a broad and cross-cutting three-pronged approach:

- -Improving case management skills of health-care staff
- -Improving overall health systems
- -Improving family and community health practices

A cornerstone of IMCI strategy remains a set of clinical guidelines for management of childhood illness at first level health facilities. The first version of these guidelines was completed in 1995.

Since its introduction in 1996 IMCI strategy was accepted by many countries in the world and as of today more than 100 countries are being implementing IMCI strategy at large scale. Global implementation of IMCI is coordinated and supported by WHO and UNICEF.

Source-WHO webpage, 2009 More information on IMCI can be found on the WHO webpage.: http://www.who.int

MAMA PROJECT ADAPTATION OF IMCI

Complementary Information: Medicines and Procedures To Promote Community Health

SALBUTAMOL 4mg (ALBUTEROL) Tablets

Bronchi dilatory Therapy for Prevention and Treatment of ASTHMA Attacks

| AGE or WEIGHT | VIA ORAL Tablet: 4mg or part Daily Dosage for 2 weeks (Do not give more without instruction from the doctor.) | THROUGH NEBULIZATION (Fast) Dissolve the tablet (or part) of Salbuterol 4mg in 3ml de purified clean water. Administer by electric nebulizer, or manual (Bicycle Pump) for 10-15 minutes |
|--|---|---|
| 2 to 12months 5-9kg(~ 10-20lb) | 1/4 -1/2 tablet Every 8 hours | Pediatric Dosage: 0.3mg/Kg. dosage, every 4-8 hours as necessary. Take note that the <i>minimum</i> for children is 1/2 tablet for every dosage, and you can use 1/2-1 tablet in 3 ml water every 20 minutes to 2 1/2 tablets each hour in an emergency. |
| 1 to 4 years 10-19kg(~20-40lb) | ½-1 tablet Every 8 hours (Maximum: 3 a day) | <u>Dosage > 12 years and adults:</u> 1/2 - 1 tablet in 3ml solution every 4-8 hours as necessary. Note: In an emergency, the <i>minimum</i> usually is one tablet, every 20 minutes to the maximum of 12mg in one hour. |
| 5 to 11 years 20-40kg(~40-90lb) | ½-1 tablet Every 4-8 hours (Maximum: 6 a day) | Check blood pressure, and look for medical attention immediately if the attack continues. You can use an injection of adrenaline in an emergency with precaution, following the norms of treatment. Always use the lowest dosage to control the symptoms. |
| Children and Adults ≥12 years ≥40kg(≥90lb) | ½-1 tablet Every 3-8 hours (Maximum: 8 a day) Check blood pressure | Orally is preferred to control asthma. Nebulizing is preferred for frequent or serious attacks. Basic prevention includes: Smokeless air (chimney or fire outside of the house) Avoid contact with dust, feathers, animals, and parasites. |

FERROUS SULFATE 200mg (IRON) Tablets (200mg Ferrous Sulfate = 60mg Elemental Iron)

Therapy for Prevention and Recuperation of Anemia

| AGE OR WEIGHT | PREVENTATIVE THERAPY <u>Duration:</u> Less than one year: 6 months 1 year to 4 years: 3months | RECUPERATION THERAPY <u>Duration:</u> 3months | | |
|--|---|---|--|--|
| 4 to 11 months | 1/4 tablet daily (50mg) = 15mg elemental iron | 1/4 tablet 3-4 times a day (150-200mg total in one day) = 45-60mg elemental iron | | |
| $ \begin{array}{c} 1 - 2 \text{ years} \\ (12-24 \text{ months}) \end{array} $ $ \begin{array}{c} 1/2 \text{ tablet daily} \\ (100 \text{mg}) \\ = 30 \text{mg elemental iron} \end{array} $ | | 1/4 tablet 4 times a day (200mg total in one day) = 60mg elemental iron | | |
| 3-4 years (25-59 <i>months</i>) | 3/4 tablet daily (150mg) = 45mg elemental iron | ½ tablet 3 times a day (300mg total in one day) = 90mg elemental iron | | |
| 5-12 years 20-40 kg 40-90 lb | Depending on tolerance, age, and weight: ³ / ₄ - 1 tablet a day | Depending on tolerance, level of anemia, age, and weight, between ½ tablet 4 times (400 mg total in a day), to 1 ½ tablets three times a day (900 mg total in one day) = 120mg – 270mg elemental iron | | |
| Adults ≥ 40 kg ≥90 lb | One tablet daily | As much as 1½ tablets 4 times a day (1200mg total in one day if the stomach tolerates it) = 360mg elemental iron | | |

*If a boy/girl is premature or weighs less than 2500 grams(5.5 lb) begin supplements at 30 days of age with drops: 2-4mg elemental iron/kg/day divided every 12-24 hr to maximum of 15mg/day.

^{*} IRON CAN INTOXICATE QUICKLY. Store medicine out of the reach of children. Give a maximum of 30 tablets to the mother.

*Ferrous Sulfate Iron Supplement Drops: 1 dropper = 0.6mL = 15mg elemental iron

*See the Anemia flow chart for modifications if using the Nora Lynne Essential Micronutrients.

SODIUM FLOURIDE

Preventative Therapy For Dental Cavities

IF THE COMMUNAL WATER DOES NOT CONTAIN FLOURIDE

| AGE | MG of sodium fluoride |
|--------------------|-----------------------|
| 6 months – 3 years | .25mg each day |
| 3 years – 6 years | .5mg each day |
| 6 years – 16 years | 1mg each day |

If children take fluoride in excess, it can discolor their permanent teeth.

NYSTATIN Tablets of 500,000 IU

For infections of candida:

- In infants-mouth and diaper rash or the skin,
- In children and adults-mouth, skin, genital area, or anal area

For infection oral candida (thrush)* in infants:

- 1-Give 5 tablets of 500,000 IU to the mother
- 2-Ground into powder one tablet each day
- 3-Mix with 5ml (a teaspoon) of clean water
- 4-Apply on the nipples twice a day for 5 days (1 ml each time)
- 5-Put 1ml in the infant's mouth 3 times a day for 5 days(You can use in adults as well)

*White spots with pain

For vaginal candida infection*:

- 1-Give 3 tablets of 500,000 IU to the woman.
- 2-Explain that she should break each pill into 5 parts
- 3-Put one-fifth (1/5) of each tablet into the vaginal canal each night for 15 nights.

*White Fluid like cheese, with itch

For candida infection* in skin, genital area or

*Diaper rash, or red irritation under the breasts or wet areas of skin

- 1-Give one tablet to the person
- 2-Ground one tablet into a powder, mix it with one teaspoon of Vaseline and apply the lotion to the affected skin three times a day

Medicine Usage of IMCI in Tablets

Dosage and Frequencies for Infants and Adults:

| Age or Weight: | Amoxicillin 250mg Every 8 hours = 3 times a day | | Ciprofloxacin 500mg Every 12 hours = 2 times a day | | Acetaminophen or Paracetamol 100mg Every 6 hours = 4 times a day | | Prednisone or Prednisolone 5mg One time each day, take all of them | | one h day, | Sulfamethoxazole/ Trimethoprim 80/400mg Every 12 hours = 2 times a day | |
|------------------------------------|---|------------------------|--|--|--|----------------------------------|--|--------------|--------------------------|---|----------|
| Birth to | 0 to 30 2ml* days (2/5 (<3kg) teaspoon) | | 2 (or l | use before better-3) onths | 0 to 30 days (<3kg) | 1/4 | # Tablets | Weight In | Weight in | From 0 to30 days(<3kg) | 1/8 |
| 2months | 31 to 60days (3-4kg) | 3ml* (3/5 teaspoon) | Daily di | mg/kg ivided into loses. | 31 to 60 days (3-4kg) | 1/4 - 1/2 | A day | kg | Lb. | From 31 to 60days (3-4kg) | 1/4 |
| 2 to 12 months | 3/4 | 4 | 2-6 month | 1/4 tab. | 2 to 3 months (4 - <6kg) | 1/2 | 1 | 5 | 10 | 1/2 | |
| 5-9kg (10-20lb) | | | 6-12 months | 1/2 tab. | 4-35 months | 1 | 2 | 10 | 20 | <i>.</i> | |
| | | | 1/2 | (6 -<14kg.) | 1 | 3 | 15 | 30 | | | |
| 1 to 4 years 10-19kg (20-40lb) | 1 | | ,,2 | | 36-59months (14 – 19kg) | 1 1/2 | 4 | 20 | 40 | 3/4 | |
| 5 to 11 years | 1 – 1 | | 3/4 | | 25kg/55lb | 3 | 5 | 25 | 55 | 1-2 | |
| 5 to 11 years 20-40kg (40-90lb) | Depends on severity and weight | | 3/ 1 | | 30kg/66lb | 4 | 6 | 30 | 66 | Depends on severity and weight | |
| | | | | | 35kg/77lb | 5 | 7 | 35 | 77 | | |
| ≥12 years to adults | 1-2 Ta Depends of | | 1 | | 6-10 tablets maximum: 4000mg/day for brief time | | 8 | 40 | 88 | 2 | |
| ≥40kg (≥90lb.) | and w | • | | | | | 9 | 45 50 | 99 >110 | | |
| Pregnant? | Yes: If it's necessary: Category B Category C | | | Yes: Category B | | If it's necessary: Category C | | | Dangerous: Category D | | |
| NOTES: | Streptococcal Pharyngitis(tonsillitis):Use 10 days *For infants less than 2 months, break the tablet or open the capsule and mix in 5 ml sugar. Estimate 2 or 3ml | | Nalidixic Adrecommend by fluoroqui Cipro or No class is usua children but in urinary in dysentery (s | cid not ed. Replaced inolones (ex. orfloxacin. This ally not used in may be used | Paracetamol and acetaminophen have the same use and dosage. These are very toxic in overdose. Keep out of reach of children | | | 3 to 5 days | for | Do not use in: > Streptococcal Pharyngitis(tonsilling) Newborn babies if the an alternative Premature or jauna (Yellow skin) infants The last trimester of pregnancy | there is |

Commentaries from MAMA Project about the use of these medicines

- ➤ Refer to the IMCI Manual for the use of medicines and duration of treatments according to the indication.
- > This is meant to be used for guidance. Refer to other references for more information or to confirm the indications and the corresponding uses of these medicines.
- > To facilitate communication and to avoid mistakes, we will always talk about the medicines using their generic names and dosages.
- ➤ The Child Survival Kit is for the whole community, with priority to the people in low economic resources. No one that needs medicines should lose access, but to be sustained everyone needs to donate according to his ability to maintain the community medicine cabinet.

Suggestions and information for the mother about the use of tablets in infants and small children:

- > Break up the tablet or open the capsule one dosage at a time.
- You can mix it with food, juice, clean water, or sugar.
- ➤ One teaspoon has 5ml. Remember this when you are estimating the quantity of medicine. For example for treatment of Candida or if you are giving amoxicillin to infants.
- When you have capsules, you should estimate to the half or fraction.

The advantages of using tablets via oral rather than liquid medicines (even for children) are:

- Low cost.
- Less possibilities of bacterial overgrowth in warm climate without refrigeration in comparison to the liquids.
- ➤ Avoids complications from intravenous and intramuscular routes.
- > Less pain and fear for the children.
- > Less allergic reaction orally than with injection.

Specific Notes:

- ➤ Since 2005 Ampiciline is generally not preferred for shingella/bloody diarrhea due to the resistance. Use Sulfametoxazole/Trimetoprime or Nalidixilic Acid.
- > Tetracycline is not recommended for children because it causes dental damage. If there is cholera, refer them to the Health Center of the Hospital.
- > Erythromycin is associated with a lot of diarrhea or stomach pain. For this reason it is not in the chart.

MAMA Project <u>Medicines to Treat Hypertension:</u> <u>Dosage for Hypertension</u>

Diuretics†

(Stimulants of action of kidneys)

| Generic/(Brand) | To begin each day | Maximum each day |
|--|-------------------|------------------|
| Amiloride (Midamor) | 5mg | 20mg |
| Bumetanide (Bumex)§ | | |
| Chorothiazide (Diuril) | 125-250mg* | 1000mg |
| Chorthalidone (Thalitone) | 12.5-25mg | 50mg |
| Ethacrynic acid (Edecrin)§ | | |
| Furosemide (Lasix)§ | | |
| Hydrochlorothiazide(HCTZ,Oretic,Microzide) | 12.5-25mg | 50mg |
| Indapamide (Lozol) | 1.25-25mg | 5mg |
| Metolazone (Zaroxolyn)§ | | |
| Torsemide (Demadex)§ | | |
| | | |

^{*}Sometimes a dosage for two times a day is required to control the pressure for 24 hours.

[†] Do not use during a pregnancy, especially if the woman has hypertension because of the pregnancy, without looking for the specific risk category for the product.

[§] For swelling in adults with cardiac failure.

B-Blockers†

(Blockers of adrenaline receptors of "Beta" type)

| (Dischers of university receptors of Deta type) | | | | | | |
|---|----------------|---------------|--|--|--|--|
| Generic(Brand) | Begin each day | Max. each day | | | | |
| Acebutolol (Sectral/Monitan) | 400mg* | 1200mg | | | | |
| Atenolol (Tenormin) | 25-50mg* | 100mg | | | | |
| Betaxolol (Kerlone) | 5-10mg | 20mg | | | | |
| Bisoprolol (Zebeta) | 2.5-5mg | 20mg | | | | |
| Carteolol (Cartrol) | 2.5mg | 10mg | | | | |
| Carvedilol (Coreg) | 6.25mg*2 times | 50mg | | | | |
| Labetalol (Trandate/Normodyne) | 100mg*2 times | 2400mg | | | | |
| Metoprolol (Lopessor/Toprol- XL) | 50-100mg* | 400-450mg | | | | |
| Nadolol (Corgard) | 20-40 | 320mg | | | | |
| Penbutolol (Levatol) | 20mg | 80mg | | | | |
| Pindolol.(Visken) | 5mg* 2 times | 60mg | | | | |
| Propranolol (Inderal, Inderal LA/InnoPran | 20-40mg* | 640mg | | | | |
| XL) | | | | | | |
| Timolol (Blocadren) | 10mg*2 times | 60mg | | | | |
| | | | | | | |

^{*} Sometimes a dosage for two times a day is required to control the pressure for 24 hours

 $[\]dagger$ Do not use during pregnancy, only acebutolol and pindolo are category B. The others listed are C.

Angiotension Converter Enzyme Inhibitor (ACE Inhibitors)†

(Prevention of the production of some hormones that cause hypertension)

| Generic/(Brand) | Begin each day | Max. Each day |
|------------------------------|-----------------|-----------------|
| Benazepril(Lotensin) | 10mg* | 80mg |
| Captopril(Capoten) | 25mg 2-3 times | 450mg |
| Enalapril(Vasotec) | 5mg* | 40mg |
| Fosinopril(Monopril) | 10mg* | 80mg |
| Lisinopril(Zestril/Prinivil) | 10mg* 7.5mg* | 80mg 30-60mg |
| Moexipril(Univasc) | 4mg* | 16mg |
| Perindopril(Aceon) | 10-20mg* | 80mg |
| Quinapril(Accupril) | 2.5mg* | 20mg |
| Ramiril(Altace) | 1-2mg* | 8mg |
| Trandolapril(Mavik) | | |

^{*} Sometimes a dosage for two times a day is required to control the pressure for 24 hours.

[†] Do not use during pregnancy.

Calcium Channel Blockers†

(To relax muscles of the blood vessels and the heart)

| Generic/(Brand) | Begin each day | Max. Each day |
|--|------------------------|---------------|
| Amlodipine(Norvasc) | 2.5-5mg | 10qd |
| Diltiazem(Cardizem, Cardizem SR, Cardizem LA, | 120-240mg* | 540mg |
| Cardizem CD, Cartia XT, Dilacor XR, Diltiazem | | |
| CD,Diltia XT, Tiazac, Taztia XT) | | |
| Felodipine(Plendil) | 2.5-5mg | 10mg |
| Isradipine(Dynacirc/DynacircCR) | 2.5mg* two times | 20mg |
| Nicardipine(Cardene/Cardene SR) | 20-30mg* 2X/3X | 120mg |
| Nifedipine(Procardia, Adalat, Procardia XL, Adalat CC)-DO | 30-60mg* | 120mg |
| NOT USE THE BRIEF ACTION, NOR UNDER THE | | |
| TONGUE IN HYPERTENSION | | |
| Nisoldipinpe(Sular) | 20mg | 60mg |
| Verapamil(Isoptin, Calan, Covera-HS, Verelan, | 40-80mg* 3X/4X | 480mg |
| Verelan PM) | 100-200mg* | 400mg |
| *Sometimes a dosage for two times a day is required to contr | rol the pressure for 2 | 4 hours. |
| † Do not use during pregnancy | - | |

ALPHA BLOCKER†

(Blocker of adrenaline receptors of "Alpha" type)

| Generic/(Brand) | Begin each day | Max. Each day |
|----------------------------|-----------------------------|---------------|
| Clonidine(Catapres) | 0.1mg* 2 times | 2.4mg |
| Doxazosin(Cardura) | 1mg at night | 16mg |
| Guanfacine(Tenex) | 1mg at night | 3mg at night |
| Methyldopa(Aldomet) | 250mg* 2 or 3 times | 3000mg |
| Prazosin(Minipress) | 1mg* 2 or 3 times(#1:Night) | 40mg |
| Reserpine(Serpasil) | 0.05mg | 0.25mg |
| Terazosin(Hytrin) | 1mg* at night, first | 20mg |

^{*}Sometimes a dosage for two times a day is required to control the pressure for 24 hours.

[†] Do not use during pregnancy

ANGIOTENSIN RECEPTOR BLOCKERS (ARBs) ††

(Prevention of the production of some hormones that cause hypertension)

| ing per consistent | | | | | | |
|------------------------------|----------------|---------------|--|--|--|--|
| Generic/(Brand) | Begin each day | Max. Each day | | | | |
| Candesartan(Atacand) | 16mg | 32mg | | | | |
| Eprosartan(Teveten) | 600mg* | 800mg | | | | |
| Irbesartan(Avapro) | 150mg | 300mg | | | | |
| Losartan(Cozaar) | 50mg* | 100mg | | | | |
| Olmesartan(Benicar) | 20mg | 40mg | | | | |
| Telmisartan(Micardis) | 40mg | 80mg | | | | |
| Valsartan(Diovan) | 80-160mg | 320mg | | | | |

^{*}Sometimes a dosage for two times a day is required to control the pressure for 24 hours.

Precautions: If the patient presents a diastolic blood pressure higher than 130mmHg, consider it an Acute Hypertensive Emergency, refer them immediately to the hospital.

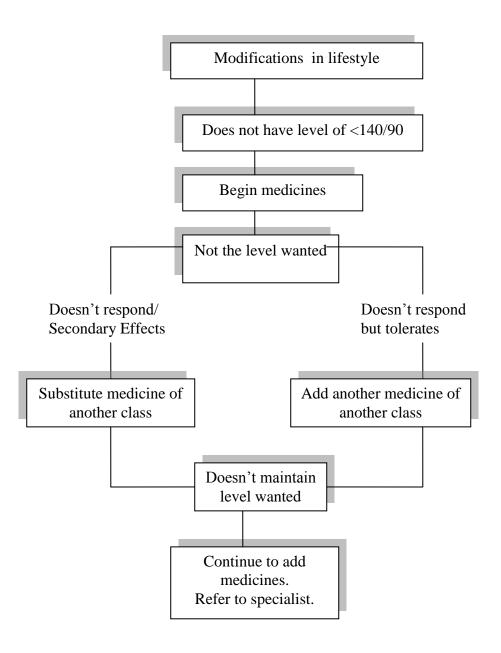
Use other guides in combination with this reference for other indications and also to confirm the use during pregnancy.

The reason for including this information in the orientation of community monitors of MAMA is only to give them a level of understanding about the medicines that the doctors prescribe to control hypertension.

[†] Do not use during pregnancy

GUIDE FOR THE MANAGEMENT AND CONROL OF: <u>HYPERTENSION</u>

ALGORITM OF TREATMENT



| Treatment for | Gastritis | and | Stomach | Ulcers |
|---------------|------------------|-----|---------|--------|
| | | | | |

Name: Date:

All over the world, the most common cause of having a stomach ulcer is from a bacteria called "Helicobacter pylori" that is transmitted because of the contamination of the environment, especially in dirty water. To treat ulcers it is necessary to kill all of the microbes with two antibiotics and, at the same time, use another medicines to prevent the production of acid in the stomach.

| | All in the Morning | All at Noontime | All in the Afternoon | All at Night | Labels |
|-----------------------------|--------------------|-----------------|----------------------|--------------|--|
| Antibiotic #1 | | | | | NAME: DATE: MORNING NOON AFTERNOON EVENING AFTERNOON EVENING AFTERNOON EVENING DENTAL POWDER AMAN PROJECT, Inc. |
| Antibiotic #2 | | | | | NAME: DATE: MORNING NOON AFTERNOON EVENING AFTERN |
| Anti-Production of Acids | | | | | NAME: DATE: MORNING NOON AFTERNOON EVENING AFTERNOON EVENING AMOXICILIN METRONIDAZOLE 250MG OR DENTAL POWDER AMAM PROJECT, INC. |

Examples of Treatment Courses

Helicobacter Pylori: Treatment of Peptic Ulcer Disease (Adapted from Med Letter 1997; 39:1; Ann Intern Med 1997; 157:87)

| Regimen Bismuth Subsalicylate (Pepto Bismol) 2 tabs qid plus metornidazole 250 mg qid plus tetracycline 500 mg qid plus ranidine 150 mg bid or omeprazole 20 mg bid | 2 wk | <u>Cost</u> \$60 | Eradication I 96% |
|---|---------------|------------------|----------------------|
| Clarithromycin 500 mg tid plus omeprazole 40 mg qd then omeprazole 20 mg qd x 14 days | 2 wk | \$289 | 72% |
| Clarithromycin 500 mg bid plus metronidazole 500 mg bid or amoxicillin 1g bid plus omeprazole 20 mg bid or lansoprazole 30 mg bid | 10-14 days | \$133- \$204 | 89-91% |
| Clarithromycin 500 mg bid plus ranitidine 400 mg bid x 14 days then ranitidine 400 mg bid x 14 days | | \$234 | NS |
| Bismuth subsalicylate (Pepto Bismol) 2 tabs qid plus metronidazole 500 mg tid plus tetracycline 500 mg qid | 2 wk | \$15 | 90% |
| Omeprazole 40-60 mg qd plus amoxicillin 500 mg tid plus metronidazole 500 mg bid | 7 days | \$111 | 84% |

| Helicoba | acter Pylori Therapy | amoxicillin + | 1000 mg bid x 7 days |
|------------------------|----------------------------------|------------------|----------------------|
| All mediciations are I | PO, BSS = bismuth subsalicylate, | clarithromycin + | 500 mg bid x 7 days |
| PPI = protein pump in | nhibitor | rabeprazole | 20 mg bid x 7 days |
| BSS + | 525 mg qid x 14 days | BSS + | 525 mg qid x 14 days |
| metronidazole + | 500 mg qid x 14 days | metronidazole + | 500 mg qid x 14 days |
| tetracycline + | 500 mg qid x 14 days | tetracycline + | 500 mg qid x 14 days |
| H2 antagonist | bid x 28 days | PPI | bid x 14 days |
| amoxicillin + | 1000 mg bid x 14 days | metronidazole + | 500 mg bid x 14 days |
| clarithromycin + | 500 mg bid x 14 days | clarithromycin + | 500 mg bid x 14 days |
| PPI | bid x 14 days | PPI | bid x 14 days |

Examples of Anti-Production of Acids Medicines

Antiulcer - H2 Antagonists

cimetine (Tagamet, Tagamet HB, Peptol): 300 mg IV/IM/PO q6-8h, 400 mg PO bid, or 400-800 mg PO qhs. Erosive esophagitis: 800 mg PO bid or 400 mg PO qud. Continuous IV infusion 37.5-50 mg/h (900-1200 mg/day). [Generic/Trade: tab 200,300,400,800 mg, liquid 300mg/5mL. OTC, trade only: tab 100 mg, susp 200 mg/20mL.]

famotidine (Pepcid, Pepcid RPD, Pepcid AC): 20 mg IV q12h. 20-40 mg PO qhs, or 20 mg PO bid. [Generic/Trade: tab 10 mg (OTC, Pepcid AC Acid Controller), 20, 30, 40 mg. Trade only: orally disintegrating tab (Pepcid RPD) 20, 40 mg, suspension 40mg/5mL.]

nizatidine (Axid, Axid AR): 150-300 mg PO qhs, or 150 mg PO bid. [Trade only: tabs 75 mg (OTC, Axid AR). Generic/Trade: cap 150,300 mg.]

Pepcid Complete (famotidine + calcium carbonate + Mg hydroxide): Heartburn: 1 tab PO prn. Max 2 tabs/day. [OTC: Trade only: chew tab famotidine 10 mg with calcium carbonate 800 mg & magnesium hydroxide 165 mg.]

ranitidine (Zantac, Zantac 75, Peptic Relief): 150 mg PO bid or 300 mg PO qhs. 50 mg IV/IM q8h, or continuous infusion 6.25 mg/h (150 mg/d). [Generic/Trade: tabs 75 mg (OTC, Zantac 75), 150,300 mg, syrup 75 mg/5mL. Trade only: effervescent tab 150 mg, caps 150/300 mg, granules 150 mg.]

Antiulcer - Proton Pump Inhibitors

esomeprazole (Nexium): Erosive esophagitis: 20-40 mg PO qd x 4-8 weeks. Maintenance of erosive esophagitis: 20 mg PO qd. GERD: 20 mg PO qd x 4 weeks. H pylori eradication: 40 mg PO qd x 10 days with amoxicillin & clarithromycin. [Trade only: delayed release cap 20, 40 mg.]

Iansoprazole (Prevacid): Duodenal ulcer or maintanence therapy after healing of duodenal ulcer, or erosive esophagitis, NSAID-induced gastric ulcer: 30 mg PO qd x 8 weeks (treatment), 15 mg PO qd for up to 12 weeks (prevention). GERD: 15 mg PO qd. Erosive esophagitis or gastric ulcer: 30 mg PO qd. [Trade only: cap 15, 30 mg. Susp 15,30 mg packets. Orally disintegrating tab 15,30 mg.]

omeprazole (Prilosec, Losec): Duodenal ulcer or erosive esophagitis: 20 mg PO qd. Heartburn (OTC): 20 mg PO qd x 14 days. Gastric ulcer: 40 mg PO qd. Hypersecretory conditions: 60 mg PO qd. [Trade/generic: cap 10,20 mg. OTC: 20 mg. Trade only: cap 40 mg.]

pantoprazole (Protonix, Pantoloc): GERD: 40 mg PO qd, or 40 mg IV qd x 7-10 days until taking PO. Zollinger-Ellison syndrome: 80 mg IV q8-12h x 6 days until taking PO. [Trade only: tab 40 mg.]

rabeprazole (Aciphex, Pariet): 20 mg PO qd. [Trade only: tab 20 mg.]

Antiulcer - Helicobacter pylori Treatment

Helidac (bismuth subsalicylate + metronidazole + tetracycline): 1 dose PO qid for 2 weeks. To be given with an H2 antagonist. [Trade only: Each dose: bismuth subsalicylate 524 (2x262mg) + metronidazole 250 mg + tetracycline 500mg.]

PrePac (lansoprazole + amoxicillin + clarithromycin): 1 dose PO bid x 10-14 days. [Trade only: lansoprazole 30 mg x 2 + amoxicillin 1 g (2x500 mg) x 2, clarithromycin 500 mg x 2.]

Vitamin A Mega-dose Capsules

200,000 International Units (IU) per Capsule Prevention & Treatment Doses

Repeat this dose as recommended for emergency indications.

| Age: | Units per Dose | Capsule /Drops | Notes: | |
|--|-------------------|-------------------|--|--|
| Infants 0-5 months | None | | | |
| Infants less than 6 months: Non-breastfed or breastfed if mother has not received supplemental Vitamin A | 50,000 IU | 1/4 or 2 drops | Breast milk provides Vitamin A. | |
| Infants 6 to 12 months: Every 4-6 months | 100,000 IU | ½ or 4 drops | Give eggs, milk, greens, fruits, colored vegetables. | |
| Children over 12 months: Every 4-6 months | 200,000 IU | l or 8 drops | Not safe for girls or women who may become pregnant! | |
| Mothers 6 weeks postpartum | 200,000 IU | l or 8 drops | | |

^{*}New norms are being developed in many countries, based on current research. Contact the country's Ministry of Health to find out the regulations that they follow.

Vitamin A Mega-dose Capsules New Norms

200,000 International Units (IU) per Capsule Prevention & Treatment Doses

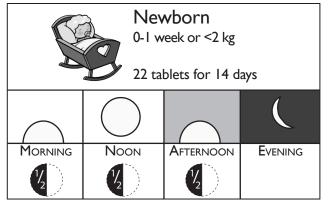
Repeat this dose as recommended for emergency indications.

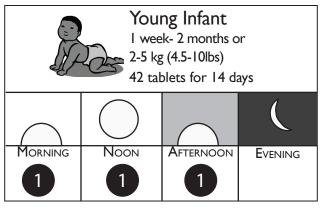
| Age: | Units per Dose | Capsule /Drops | Notes: |
|---|---|--|---|
| Infants 0-5 months | 3 doses of 50,000 IU with at least I month between doses | 1/4 each dose or 2 drops each dose | Breast milk provides Vitamin A. |
| Infants less than 6 months: Non-breastfed or breastfed if mother has not received supplemental Vitamin A | 100,000 IU | ½ or 4 drops | Breast milk provides Vitamin A. *New norm=Infants 6-11 months can receive 100,000 IU every 4-6 months. |
| Infants 6 to 12 months: Every 4-6 months | 100,000 IU | ½ or 4 drops | Give eggs, milk, greens, fruits, colored vegetables. *New norm=Children older than 12 months can receive 200,000 IU every 4-6 months. |
| Children over 12 months: Every 4-6 months | 200,000 IU | I | Not safe for girls or women who may become pregnant! |
| Mothers 6 weeks postpartum | 200,000* IU | I | *New norm=Mothers 6 weeks postpartum can receive 2 doses of 200,000 IU each at least I day apart. |

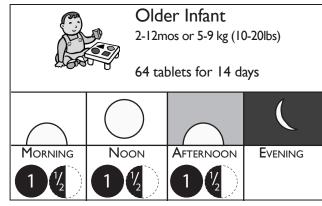
^{*}New norms are being developed in many countries, based on current research, but are not yet universally accepted. Contact the country's Ministry of Health to find out the regulations that they follow.

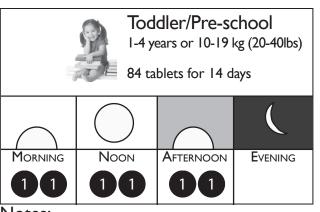
Amoxicillin 250 mg - High Dose

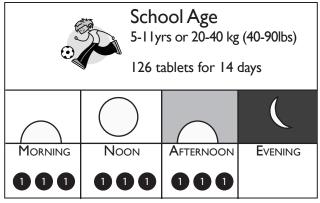
Emergency Early Intervention Regimen for Noma, Severe Pneumonia, and other Serious Infections

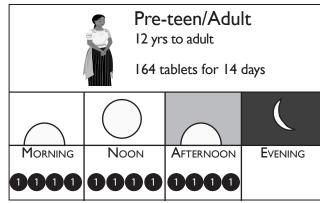










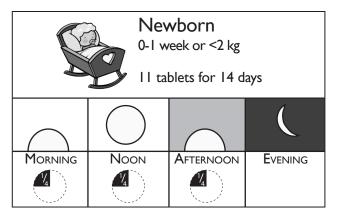


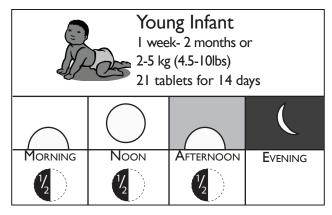
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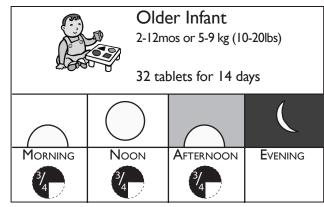
- At first sign of early noma, begin AMOXICILLIN 250mg/tablet. Continue 14 days.
- If care is delayed, and the child presents a swollen cheek use the double dose: Save patient's life and limit permanent damage to the face.
- Maintain AMOXICILLIN 250 mg Emergency Stock in Child Survival Kit in each village to avoid treatment delays.
- Treat nerotizing gingiva-stomatitis following measles or malaria in a malnourished child to prevent progress to noma. Also include essential micronutrient supplements, Vitamin A triple dose, Dentifrice, and improved nutrition (ie. eggs and oil).
- Metronidazole with Amoxicillin recommended if both are available. Amoxicillin/clavulanate is another excellent option with or without metronidazole.
- Seek consultation as soon as possible. Continue treatments while traveling to the clinic or hospital. When child comes to attention, dispense full number of doses so that treatment can continue in event of further delay.
- If Amoxicillin is in capsule: Open and divide powdered contents. Tablets may be crushed and mixed with breast milk, food, liquid or sugar and fed to children with spoon.
- Taking with food is not necessary but can help if stomach is upset.
- Amoxicillin used for tonsillitis, ear infections, sinusitis, lung infections (pneumonia), eye infection after measles, skin, soft tissue, umbilical (navel) and urinary infections. Use double dose for critical illness and delayed treatment.
- Critically ill malnourished child may not express signs of infections. Therefore, it may be life-saving to begin a course of broad spectrum oral antibiotics such as cotrimoxazole and/or metronidazole and amoxicillin while referring to a higher level of care.
- Category B: Safe in Pregnancy

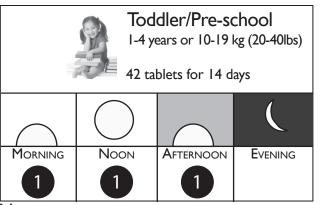
Amoxicillin 250 mg - Moderate Dose

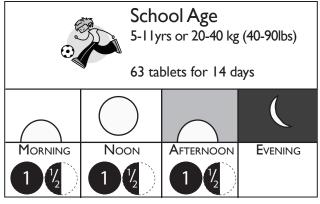
Early Intervention Regimen for Moderate Infections

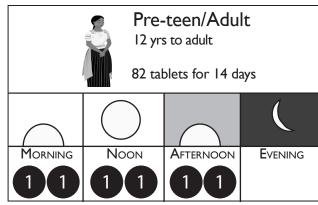










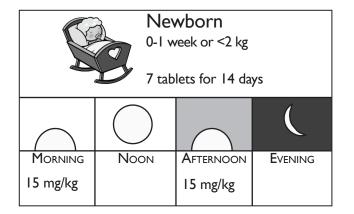


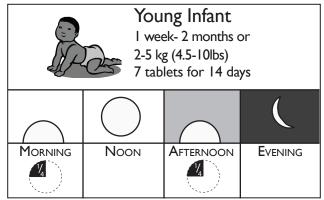
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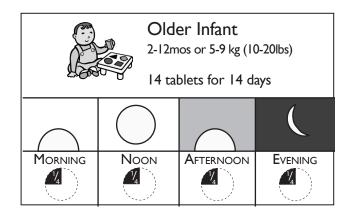
- Duration of therapy 14 days for noma, 3 days for non-severe pneumonia, 5 days for acute ear infections, 10 days for tonsilitis.
- If care is delayed, and the child presents a swollen cheek use the double dose: Save patient's life and limit permanent damage to the face.
- Maintain AMOXICILLIN 250 mg Emergency Stock in Child Survival Kit in each village to avoid treatment delays.
- Treat gingiva-stomatitis following measles or malaria in a malnourished child to prevent progress to noma. Also include essential micronutrient supplements, Vitamin A triple dose, Dentifrice, and improved nutrition (ie. eggs and oil).
- Metronidazole with Amoxicillin recommended if both are available. Amoxicillin/clavulanate is another excellent option with or without metronidazole.
- Seek consultation as soon as possible. Continue treatments while traveling to the clinic or hospital. When child comes to attention, dispense full number of doses so that treatment can continue in event of further delay.
- If Amoxicillin is in capsule: Open and divide powdered contents. Tablets may be crushed and mixed with breast milk, food, liquid or sugar and fed to children with spoon.
- Taking with food is not necessary but can help if stomach is upset.
- Amoxicillin used for tonsillitis, ear infections, sinusitis, lung infections (pneumonia), eye infection after measles, soft tissue, skin, umbilical (navel) and urinary infections. Use double dose for critical illness and delayed treatment. (See page 8 in IMCI booklet.)
- Critically ill malnourished child may not express signs of infections. Therefore, it may be life-saving to begin a course of broad spectrum oral antibiotics such as cotrimoxazole and/or metronidazole and amoxicillin while referring to a higher level of care.
- Category B: Safe in Pregnancy

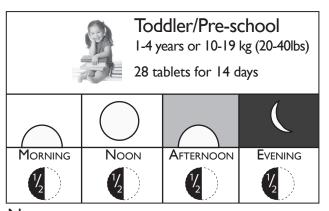
Metronidazole 250 mg

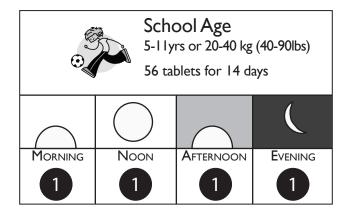
Emergency Early Intervention for Noma and Suspected Pre-Noma Lesions, and other Infections

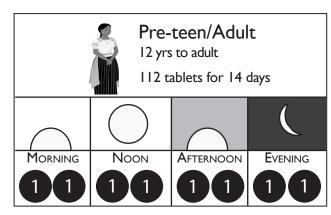










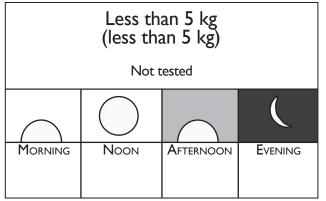


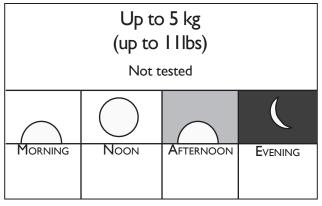
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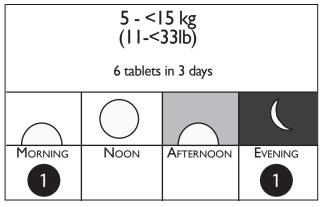
- At first sign of early noma, begin METRONIDAZOLE 250mg/tablet. Continue 14 days.
- Maintain METRONIDAZOLE 250 mg Emergency Stock in Child Survival Kit in each village to avoid treatment delays.
- Treat nerotizing gingiva-stomatitis following measles or malaria in a malnourished child to prevent progress to noma. Also include essential micronutrient supplements, Vitamin A triple dose, Dentifrice, and improved nutrition (ie. eggs and oil).
- Metronidazole with Amoxicillin recommended if both are available. Amoxicillin/clavulanate is another excellent option with or without metronidazole.
- Seek consultation as soon as possible. Continue treatments while traveling to the clinic or hospital. When child comes to attention, dispense full number of doses so that treatment can continue in event of further delay.
- If METRONIDAZOLE is in capsule: Open and divide powdered contents. Tablets may be crushed and mixed with breast milk, food, liquid or sugar and fed to children with spoon.
- Taking with food is not necessary but can help if stomach is upset.
- Also use for eye infection after measles, with Amoxillin.
- Metronidazole is also used for trichomoniasis, bacterial vaginosis, amebic liver abscess, intestinal amebiasis, pelvic and abdominal infections (with other antibiotics), giardiasis, c.difficile diarrhea.
- Critically ill malnourished child may not express signs of infections. Therefore, it may be life-saving to give a course of broad spectrum antibiotics such as cotrimoxazole and/or metronidazole and amoxicil-lin while referring to a higher level of care.
- Category B: Safe in Pregnancy

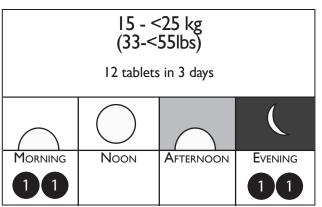
Oral Co-artemether

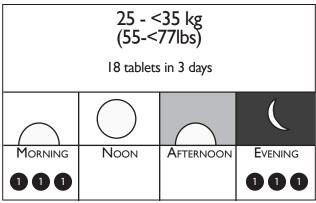
6 doses for 3 days for Acute Uncomplicated Malaria

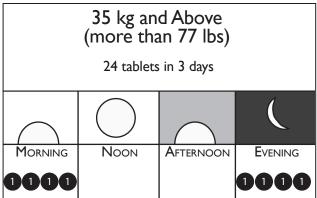












Notes:

Day 1: Give the first dose of co-artemether and observe for one hour. If child vomits within an hour, repeat the dose. Give the 2nd dose within 8 hours. Days 2 & 3:Twice daily for further 2 days as shown above, around 12 hours apart.

- Co-artemether should be taken with food.
- Co-artemether may be crushed and dissolved in 1-2 teaspoons (5-10mL) liquid just before the dose is taken.
- Brand names: Coartem®, Riamet®
- Active Ingredients: Artemether 20mg/Lumefantrine 120mg